

REMARKS/ARGUMENTS

The arguments and amendments presented herein include the arguments and amendments Applicants discussed with the Examiner during phone interview dated March 11, 2009. The Examiner requested Applicants to submit the discussed arguments and amendments for reconsideration, which Applicants present herein. Applicants submit that the arguments and amendments presented herein make the substance of the phone interview of record to comply with 37 CFR 1.133. If the Examiner believes that further information on the interview needs to be made of record to comply with the requirements, Applicants request the Examiner to identify such further information.

Applicants cancel claim 21 to overcome the objection thereto on page 2 of the Office Action.

1. Amended Claims 24, 25, 27, 29, 31, 35-37 Comply with 35 U.S.C. §101

The Examiner rejected claims 20-36 as directed to non-statutory matter (35 U.S.C. §101) and found they could comply if amended to identify the apparatus for accomplishing the method steps.

Applicants submit new independent claim 37 which recites a “computer implemented method” and recites that the storage objects are created in a “computer readable storage medium”. These added requirements are disclosed in at least para. 58 of the Specification (references to the “Specification” are to the paragraph numbers in the Published Application No. 2005/1038040).

Applicants request that the Examiner withdraw this rejection in view of the new independent claim 37, which replaces claim 20.

2. Claims 24, 25, 27, 29, 31, 35-37 is Patentable Over the Cited Art

The Examiner rejected previous pending claims 20-33 as obvious (35 U.S.C. §103) over Bhat (U.S. Patent Pub. No. 2003/0055808) in view of Weber (U.S. Patent Pub. No. 2002/0184360) and Hiltgen (U.S. Patent Pub. No. 2003/0073532). Applicants traverse with respect to the amended claims.

New independent claim 37 recites a computer implemented method for responding to an inquiry, comprising the following operations: receiving a single inquiry from a CIM client

application including a unique ID of a top level storage entity, wherein the top level storage entity identified by the unique ID includes components associated as a component of the top level storage entity and a subcomponent of at least one component; using CIM client APIs in response to the single inquiry to obtain information from a CIMOM using the unique ID of the top level storage entity to obtain information on components and subcomponents of the top level storage entity from multiple CIM objects on the top level storage entity and components and subcomponents of the top level storage entity in the CIMOM; creating a plurality of storage objects in a computer readable storage medium including information on the top level storage entity and components and subcomponents, and parent-child relationships among the top level storage entity and the components and subcomponents of the top level storage entity; populating the created storage objects with information received from the CIMOM including identifying the entities in the top level storage entity and the parent child relationships of the top level storage entity, components and subcomponents, and wherein properties of each storage object map directly to properties of at least one CIM class used to represent the top level storage entity and components and subcomponents of the top level storage entity in the CIMOM; and returning information on the storage objects to the CIM client application that sent the inquiry.

Claim 37 is submitted to replace independent claim 20. The requirements of claim 37 are disclosed in the previous claim 20 and in paras. 69-70 and 78-93 of the Specification.

The Examiner cited paras. 11, 21, 28, 29, 30, 34, 36 of Bhat, paras. 32, 33, 103 of Weber, and paras. 12, 23, 57, and 74 of Hiltgen with respect to the requirements of canceled claim 20. (OA5, pgs. 5-8). Applicants submit that these cited sections do not teach or suggest the requirements of new claim 37.

The cited para. 11 of Bhat discusses adjusting and adding models of storage devices used for logging operations. A logging service may interact with an interface that uses implementation objects. The cited para. 21 discusses log requests, where a logging service accesses property file to determine which storage device incorporated by the computing system is activated as a primary log storage device. The cited paras. 28-30 mention client APIs to analyze and manage resources in a server. Client application may be configured to manage software running on a server. The client APIs may communicate with a CIMOM and manipulate CIM objects representing managed objects. Para. 36 mentions that providers

perform function in response to a request from CIMOM. Providers map information from a managed device to a CIM class.

Although the cited Bhat discusses CIM objects having information on managed devices, there is no teaching of receiving a single inquire including a unique ID of a top level storage entity and using CIM APIs to obtain information from a CIMOM using the unique ID to obtain information on components and subcomponents of the top level storage entities, and creating storage objects including information on the top level storage entity, component objects and subcomponents, and parent-child relationships.

With respect to Weber, the cited para. 103 mentions a monitor thread and RPC agent threads for each device monitor each device for configuration changes or other device events. An event listener management protocol thread is started to detect events from the device. For device monitoring, the agent thread is configured for listening. Para. 86 mentions a detailed information window presenting properties for each device in the management domain, based on the node a user selects. Individual device nodes may be selected and when a device is selected, detailed information window displays certain device attributes of the selected node. Para. 91 mentions a logical view window illustrates the logical composition and properties of a selected device and the logical objects of the storage array are organized in a tree structure. Para. 101 mentions a management protocol server listening for management protocol requests that is queried via an RPC agent thread. Upon receiving device properties, a device connection table is built to provide a list of connections for the device. The cited para. 106 mentions start-up procedures for a management interface application. Although the cited Weber discusses displaying information on a selected device and listening for and gathering information on devices, there is no teaching of the specific requirement of in response to receiving a single inquiry from a CIM client application including a unique ID of a top level storage entity and using CIM APIs to obtain information from a CIMOM using the unique IDs to obtain information on components and subcomponents of the top level storage entity, and creating storage objects including information on the top level storage entity, component objects and subcomponents, and parent-child relationships.

The cited paras. 23, 12, 57, and 74 of Hiltgen discuss profiles describing a class of a SAN entity, which may describe a device within a SAN and that may be used to build an object graph (para. 12). Para .23 mentions requesting an object graph, where a single profile query language

statement can be used to request a profile, and an object graph is generated using the profile. The cited para. 57 mentions that CIM/WBEM provides a mechanism for query languages to be used to allow clients to retrieve object graphs. The client can make one request and receive an entire collection of class instances for an object graph (paras. 57 and 74). An object graph represents resources in a network (para. 7). Although the cited Hiltgen discusses a profile request to build an object graph, this cited Hiltgen does not teach or suggest the specific claim requirements of in response to receiving a single inquiry from a CIM client application including a unique ID of a top level storage entity, using CIM APIs to obtain information from a CIMOM using the unique IDs to obtain information on components and subcomponents of the top level storage entity, and creating storage objects including information on the top level storage entity, components and subcomponents, and parent-child relationships.

Moreover, the Examiner has not cited any part of the cited art that teaches that properties of each of the storage objects on the top level storage entity, components and subcomponents map directly to properties of at least one CIM class used to represent the top level storage entity and components and subcomponents in the top level storage entity in the CIMOM.

Accordingly, added claim 37 is patentable over the cited art because the cited combination does not teach all the claim requirements.

Claims 24, 25, 27, 29, 31, 35, and 36 are patentable over the cited art because they depend from claim 37 and the additional requirements of these claims in combination with the base claim 37 provide further grounds of patentability over the cited art.

Applicants further amended claims 24, 25, 27, 29, 31, 35, and 36 to change the dependency to a pending claim and clarify the claim language.

3. Added Claims 38-49

Added claims 38-43 include the requirements of claims 37, 24, 25, 29, 31, and 36, respectively, in system form. The preamble and first two limitations of claim 38 are disclosed in at least paras. 46-52 and 57-58 and FIG. 1 of the Specification.

Added claims 44-49 include the requirements of claims 37, 24, 25, 29, 31, and 36, respectively, in system form. The preamble of claim 38 is disclosed in at least paras. 46-52 and 57-58 and FIG. 1 of the Specification.

Claims 38-49 are patentable over the cited art because they include the requirements of pending claims 37, 24, 25, 29, 31, and 36, which are patentable over the cited art for the reasons discussed above.

Conclusion

For all the above reasons, Applicant submits that the pending claims 24, 25, 27, 29, 31, and 35-49 are in condition for allowance. Should any additional fees be required, such as fees under 37 CFR §§1.16 and 1.17, please charge Deposit Account No. 09-0460.

The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

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